

CLAIMS

WHAT IS CLAIMED IS:

- 5 1. A video recording system for effectively recording video images of unaware subjects under a broad range of lighting conditions automatically in response to detection of motion by such subject using a camera system having controls enabling selective operation of such camera system, the video recording system comprising:
- 10 a motion detector operatively associated with such a camera system in order to selectively produce, in response to detection of motion as by such a subject, an output signal for selectively adjusting such camera's light sensitivity and for selectively causing such camera system to begin recording video images of such subject;
- 15 a light sensitivity adjustment system for ensuring that such camera is able to effectively record video images of such subject under such broad range of lighting conditions in response to receipt of the output signal, the light sensitivity adjustment system comprising:
- 20 a photodetection module operatively associated with the camera system, adapted to detect a light level external to such camera system under which light level an unaware subject would be recorded on video images by such a camera system, and including a camera sensitivity control interface to selectively adjust such camera controls governing the light sensitivity of such camera in order to cause such camera system to have a desired light sensitivity to enable effective video recording of such subject.
- 25 2. The video recording system in accordance with claim 1, further comprising:
- a logic control system operatively connected to the motion detector, the control system adapted to programmably select the sensitivity of the motion detector in order to establish a desired threshold of motion in response to which the motion detector will produce an output signal.

3. The video recording system in accordance with claim 2, wherein the logic control system is operatively connected to the light sensitivity adjustment system, the control system adapted to programmably select the sensitivity of the camera system in order to establish a desired level of light sensitivity.

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4. The video recording system in accordance with claim 1, further comprising:

a programmable microprocessor-based control system operatively connected to the camera system and the motion detector in order to selectively actuate the camera system so as to cause the camera system to begin recording video images at a desired moment in time.

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5. The video recording system in accordance with claim 4, wherein the programmable microprocessor-based control system is also adapted to selectively disengage the camera system in order to limit the recording of video images of unaware subjects to a period of time having a desired length.

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6. The video recording system in accordance with claim 1, further comprising:

an infrared lamp system operatively associated with camera system for selectively illuminating an unaware subject in order to provide a desired level of light outside of the range of vision capability of anticipated unaware subjects; and

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wherein the camera system is adapted to record video images of the unaware subject sufficiently illuminated with infrared lighting.

7. A video recording system for effectively recording video images of unaware subjects under a broad range of lighting conditions automatically in response to detection of motion by such subject using a camera system having controls enabling selective operation of such camera system, the video recording system comprising:

5 a motion detector operatively associated with such a camera system in order to selectively produce, in response to detection of motion as by such a subject, an output signal for selectively engaging a filter system and for selectively causing such camera system to begin recording video images of such subject;

10 a light sensitivity adjustment system for ensuring that such camera is able to effectively record video images of such subject under such broad range of lighting conditions in response to receipt of the output signal, the light sensitivity adjustment system comprising:

15 a photodetection module operatively associated with a filter system, adapted to detect a light level external to such camera system under which light level an unaware subject would be recorded on video images by such a camera system;

 wherein the filter system is adapted to filter light entering such camera in order to compensate for the known degree of light sensitivity of the camera in order to allow effective video recording of such subject.

20 8. The video recording system according to claim 7, further comprising:

 a logic control system operatively connected to the motion detector, the control system adapted to programmably select the sensitivity of the motion detector in order to establish a desired threshold of motion in response to which the motion detector will produce an output signal.

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9. The video recording system in accordance with claim 8, wherein the logic control system is operatively connected to the filter system, the control system adapted to programmably select the engagement and disengagement of the filter system in response

to the photodetection module in order to facilitate effective recording of video images of unaware subjects under high and low lighting conditions.

10. The video recording system in accordance with claim 7, further comprising:

5 a programmable microprocessor-based control system operatively connected to the camera system and the motion detector in order to selectively actuate the camera system so as to cause the camera system to begin recording video images at a desired moment in time.

10 11. The video recording system in accordance with claim 10, wherein the programmable microprocessor-based control system is also adapted to selectively disengage the camera system in order to limit the recording of video images of unaware subjects to a period of time having a desired length.

15 12. The video recording system in accordance with claim 7, further comprising:

 an infrared lamp system operatively associated with camera system for selectively illuminating an unaware subject in order to provide a desired level of light outside of the range of vision capability of anticipated unaware subjects; and

 wherein the camera system is adapted to record video images of the unaware
20 subject sufficiently illuminated with infrared lighting.

13. A video recording method for effectively recording video images of unaware subjects under a broad range of lighting conditions automatically in response to detection of motion by such subject using a camera system having controls enabling selective operation of such camera system, the video recording method comprising the steps of:

5 detecting motion as by such a subject;

 upon the detecting of motion, producing an output signal for causing such camera system to begin recording video images of such subject;

 upon receipt of the output signal, detecting a light level external to such camera system within which light level an unaware subject is oriented;

10 selectively adapting the capacity of the camera system to record video images of an unaware subject under the environmental lighting conditions under which the unaware subject is susceptible to recordation by the camera system.

14. The video recording method of claim 13, further comprising:

15 selecting the sensitivity threshold for detecting motion as by a subject in order to establish a desired level of motion sensitivity which will lead to producing an output signal.

15. The video recording method of claim 14, wherein the selectively adapting the
20 capacity of the camera system to record video images of an unaware subject under the environmental lighting conditions under which the unaware subject is susceptible to recordation by the camera system comprises:

 selecting the light sensitivity of the camera system in order to compensate for the known degree of lighting under which the unaware subject is to be recorded by the
25 camera system.

16. The video recording method of claim 14, wherein the selectively adapting the capacity of the camera system to record video images of an unaware subject under the

environmental lighting conditions under which the unaware subject is susceptible to
recording by the camera system comprises:

5 filtering light entering such camera system in order to compensate for the known
degree of light sensitivity of the camera in order to allow effective video recording of
such subject.

17. The video recording method of claim 13, further comprising:

10 selectively disengaging the camera system from recording video images in order
to limit the recording of video images of unaware subjects to a period of time having a
desired length.

18. The video recording method of claim 13, further comprising:

15 casting an infrared light upon the unaware subject in order to illuminate the
unaware subject sufficiently to enable effective recording of the subject by the camera
system, wherein the wavelength of the infrared light is selected so as to be visually
undetectable to anticipated subjects.

19. The video recording method of claim 13, further comprising:

20 managing recording of video images by the camera system in order to facilitate
random access to recorded visual images.

20. The video recording method of claim 13, further comprising:

25 circulating air within a housing which contains the camera system in order to
mitigate hot spots within the housing.